

Ubisense is designed to sense and respond to events with sub-second latencies, when tracking any number of people and objects in any space of any size.

Benefits

Variable update rates

Ubisense tags have controllable update rates from as fast as 40 updates per second to as slow as one update every 14 minutes. Update rates can be varied in real time by application programs, in response to tag activity or external events.

Ubisense tags include a sensitive tremble switch that enables a „sleep mode“. Using sleep mode a tag consumes almost no battery when stationary, but can be tracked many times a second when moving.

Predictable low latency

The total Real-Time Location System (RTLS) processing delay (delay between UWB transmission and location event generation) is 243ms for a standard Ubisense system, and 75ms for the High Update Rate system, making Ubisense fast enough for many real-time control applications.

Ubisense is a true real-time system: the Ubisense TDMA architecture ensures that the processing delay is guaranteed to be constant.

Accurate time-stamping

Ubisense RTLS time-stamping jitter is extremely low (better than 10 microseconds), which makes it easy to cross-reference Ubisense sensor data with other sensor systems, video streams, etc.

Scalable real-time event distribution

Ubisense Location Platform’s integrated cache and event support means location data can be distributed in real time anywhere on the network.

Location Platform’s underlying transport mechanism uses reliable multicast protocols built on top of standard IP multicast so that events can be pushed to many applications simultaneously without compromising server performance.

Location Platform’s cellular architecture ensures that applications carry on responding instantaneously to events no matter how large the installation. The cellular architecture scales all the way up the applications stack, so it is easy for inexperienced users to write applications that scale to very large aggregate update rates, while providing low-latency response.

Real live real-time production sites

At the BMW plant in Regensburg, Germany, 1000 cars and 120 torque tools are tracked continuously, with an aggregate event rate of up to 1500 location events per second. Tools are automatically programmed as they approach cars, and programming operations are delivered with better than one second latency from real-world event to tool programming.

Andreas Lehner, responsible project manager at BMW: **“All the project objectives have been met on time and within the planned budget. From the standpoint of value creation, the project is a complete success.”**

Examples



Outboard uses the Ubisense Location Platform in its TiMax Tracker product which uses real-time location-aware control enhances live stage performances by making electronic sound effects follow the movement of actors, animatronics or stage scenery.



Smarter Farming uses Ubisense to track dairy cattle in cowsheds in real time so that animal behaviour patterns can be easily detected and classified.

Reliable identification of animal behaviour changes is used to improve animal welfare and milk yields, and to predict insemination opportunities.

About Ubisense

Ubisense is the world leader in Precise Real Time Location Systems, tracking unlimited numbers of people and objects in any space of any size. With unmatched 15cm 3D tracking accuracy and high reliability, its acclaimed open standards technology platform gives enterprises the power to bring visibility and control to previously intractable business processes. Together Ubisense consulting and its partners, such as IBM, Atlas Copco, Lockheed Martin and Raytheon deliver geospatial and RTLS systems, pioneering innovation whilst reducing costs, gaining competitive advantage and improving safety for companies across all vertical markets. With over 400 customers worldwide including BMW, Caterpillar, DHL, Duke Energy, Deutsche Telekom, US Army; Ubisense is revolutionising industries today. Visit www.ubisense.net

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